

**Being a weekly published
at the Massachusetts In-
stitute of Technology and
called THE TECH**



1900 - 1901

Boston

Mass

Oak Grove Creamery Company,

- - DAIRY LUNCH ROOM - -

445 BOYLSTON STREET, COR. BERKELEY, * * * Opp. Y. M. C. A. Building.

Where can be had

Sandwiches of all Kinds, Soups, Tea, Coffee, and Regular Dairy Lunch.

EVERYTHING FIRST-CLASS.

\$6.00 Check for \$5.00.

Pure Milk and Cream.

All Kinds of Meats.

NELSON L. MARTIN

George S. Chase.

Harvey S. Chase.

AUDITORS and

EXPERT EXAMINERS OF ACCOUNTS.

Special experience in audits of Manufacturing and Mill Accounts, of Municipal Accounts, and in examinations of insolvent corporations for creditors or assignees.

REFERENCES.

Manchester Mills, Pacific Mills, Lowell Mill Co., City of Providence, Chickering & Sons, Chapman Valve Mill Co., and to officers of other Corporations, Banks, Trust Co's, etc.

8 CONGRESS ST., BOSTON.

Telephone 355, Boston.

... IMPORTANT ... TO TECH STUDENTS.

My small expense is your benefit. I
Sponge and Press Trousers for 10c., Suits
or Overcoats for 35c., to Students of Tech
only. I also Make Clothes to Order in a
strictly first-class manner, at the most
Reasonable Prices.

L. S. ROSENWALD. - - Practical Tailor,
821 COLUMBUS AVENUE, BOSTON.

Tech Students  Why not take your meals at



Ritchie's Dining Room,

4 Columbus Avenue
Canton, Old Port, Boston, Mass.

There you will find the food very
nice and the price reasonable.

Discount Tickets—\$3.50 for \$3.00.

Give us a trial and we will do our best to please you.

To writing students, 10c. a week, previous trials free.

Clark's Dairy Lunch,

22 Columbus Avenue.

All our Soups, Chowders and Chicken Pies are HOME MADE—Chowder, Clam Chowder, Fish Chowder, etc.

We use only strictly Fresh Eggs and the best Creamery Butter. Our Coffee is unsurpassed.

The David Myers Company,
Tailors to Harvard Co-operative Society,

172 Tremont St., Boston.

The Harvard Co-operative Society discount of 15 per cent allowed to all Tech students.

HIBBARD & MASON,

(INCORPORATED.)

414 Washington Street,

BOSTON.

Exhibit specially selected
fashionable materials suited
to the requirements of those
who dress in becoming
clothes.

DRESS SUITS, silk-lined and faced, \$45.00.

**Wilbur, Campbell, Stephens
Company,**

HIGH-GRADE Factories & *
SHIRTS, TROY and
COLLARS and ALBANY,
CUFFS. ... N. Y.
BOSTON OFFICE:
24 Kingston Street.

THE DRUG SHOP.

H. O. NUTE & CO., Inc.
Everything in the Drug Line, also Full Line Imported
and Domestic Cigars.

PIPES, CIGARETTES & TOBACCO.

J. H. BLANCHARD, Reg. Phar., Manager.

H. O. NUTE & CO., Apothecaries.
335 Columbus Avenue, cor. Dartmouth St.
BOSTON, MASS.
Co-operative Discount.

**Special Discount
TO STUDENTS.**

Trousers pressed and sponged, 15 pairs for \$1.00.
3 Suits or 3 Overcoats pressed and sponged, 1.00.
Suits or Overcoats steam or naphtha cleansed, 1.25.

All other work done at low prices, and 10% discount allowed to students.

We call and deliver at any time.

**GOLDBERG & RICH,
TAILORS**

368 Columbus Avenue,
Opposite Yarmouth Street,
Tel. 438-2 Tremont.

.. THE ..

WESTMINSTER,

THE NEW HOTEL IN
COPLEY SQUARE.



EUROPEAN
* PLAN

HARRY L. BROWN,
Manager.

The Official Tech Pin.

Gold Plated on Silver, \$1.00.
Gold, \$2.50. Silver 75 cents.
HENRY GUILD & SON, Manufacturers of HAMMER AND TONGS, and other Society Pins.
433 Washington St., cor. Winter St., BOSTON.

SCIENTIFIC BOOKS

DAMIRELL & UPHAM,
The Old Corner Bookstore
283 Washington St., Boston.

DRAPER & DOANE,

Oculists & Opticians,

51 SUMMER ST.
Every attention shown those in need of Glasses.
We bring the services of an

OCULIST
within the reach of all,
Highest grade of work at Prices that are fair.

SPECIAL DISCOUNT TO TECH STUDENTS.

Gifts for All...

...Occasions.

**Weddings, Anniversaries,
Birthdays.**

**Gold, Silver, China and
Novelties.**

**Class Engraving.
Athletic Prizes.**

**A. Stowell & Co., Incorporated.
24 Winter St.**



Top Coats and Suits.

The Raglan and the Top Coat are dividing the favor of well-dressed men this season. We show splendid lines of each, excellent in quality, style and fit. Collars that fit properly, correct shoulders and stitching, all show the handwork of tailors *that have no superiors.*

OAK HALL,
Washington and Elm Streets.

1900 TECH MEN! 1901

...GO TO...

**Newman the Shoeman
COLLEGE SHOEMAKER,**

For your Shoes and Rubbers.

**79 TREMONT STREET, Tremont Building, Boston,
and Harvard Square, Cambridge.**

THE MIDVALE STEEL CO.,

Locomotive and Car Wheel Tires,
Forgings and Castings,
Bar Steel.



Nickel Steel
Forgings
for
Marine Engines.

Ordnance
Forgings
and
Castings.



OFFICE AND WORKS:
PHILADELPHIA, PA.



McMORROW, Formerly with H. H. Tuttle Co.

COLLEGE SHOES FOR COLLEGE MEN

OPP. YOUNG'S HOTEL.

238 Washington Street, Boston.

"Twenty-Five Hundred Dollars in Prizes."

The College Essay Pub. Co. is preparing a monthly for college men and women and it solicits manuscripts and drawings from college students who may select their own subjects. Write for information circular.

"STUDENT'S LOAN FUND."

One half of the proceeds accruing from the sale of this monthly will be set aside as a loan fund for needy and deserving students. No interest will be charged on loans.

"A TRIP TO EUROPE FREE."

As the title of this monthly is not decided upon we submit it to the college student. Each student will be allowed one suggestion. His title must be accompanied with one dollar as a four months' subscription. The student whose title will be accepted by three judges will receive the above prize. Write at once as this offer closes March 1st, 1901.

COLLEGE ESSAY PUB. CO.

238 Tremont Street, BOSTON, MASS.

Hotel Nottingham

The Only Hotel Facing Copley Square.

Three minutes walk from the New Back Bay Stations of the Boston & Albany and N. Y., N. H. & H.

Patronage of Tech Students is solicited in our Cafe.



European Plan.



Check Baggage Back Bay Station, Boston.

H. H. Whipple.

In writing advertisers kindly mention THE TECH.

Men's Outfitter.**STUDENTS AVOID THAT "BULGE"**

in your Full Dress Shirts by wearing the MacHurdle. The only Perfect Fitting Dress Shirt.

Lion Brand Collars and Cuffs will fit the MacHurdle Shirts.

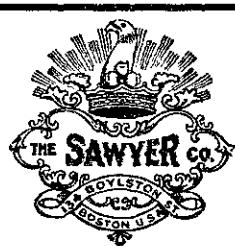
Stocktaking Sale of Neckwear, Pajamas and Underwear at reduced prices.

Special Discount to Students mentioning the "Tech."

Agent for the Cambridge Laundry, work called for and delivered promptly,

A. COHEN,

329 COLUMBUS AVENUE.



SHIRT
MAKING
is
OUR
SPECIALTY.

We invite an early
Inspection of our

Our **Shirtings**

For 1901 Are Ready

Madras, Oxfords,
Cheviots, French Percales,
English and French
Flannel and Linens.

**Choice Imported
Patterns.**

THE SAWYER CO.,

134 Boylston Street, - - - Boston.

HATTERS, GLOVERS and SHIRTMAKERS.

Telephone, Oxford 983-3.

EAT AT OUR RESTAURANT. ▷

MEADOW BROOK FARM CO.,

202 DARTMOUTH STREET,

Near Copley Square and Back Bay Station.

Good Food and Service at Moderate Prices.

LEE CATERING CO.

Restaurant and
Lunch Counter.

MEAL TICKETS. MODERATE PRICES.

Catering in all its Branches.

Choice Candies and Confectionery.

JOSEPH LEE, MANAGER.
408 Boylston Street.

Tech Students (WATCH THIS SPACE)

Our Special Bargain List of
Cameras and Photo Supplies will
be ready on the 15th of December.
Send us your address and we will
mail you one. Or better still call
and get a free sample bottle of our
B. B. B. developers, and see the
stock. We quote lowest possible
prices on Standard Goods.

Pinkham & Smith

Opticians,

288 Boylston Street,
Boston, Mass.

F. Abraham & Son,

25-27-29 COURT STREET,
BOSTON, MASS.

Manufacturers of
High-Grade Briar and Meerschaum

PIPES.

CLASS PIPES MADE ON THE PREMISES.

Browning, King & Co.,

Clothiers and Outfitters,

700 Washington Street,
BOSTON.

CUSTOM DEPARTMENT.

Thirty Day Offer.

To supply work for our Custom Tailors during February,
and until 20th March,

We will Make Suits of Scotch Cheviot Suitings for

TWENTY DOLLARS

which were intended for our Twenty-five Dollar line.

Patterns—Season 1901.

Samples on request.

Suits held 60 days, if deposit is paid.

Hall & Hancock,

Novelties in - - - -

SOFT
HATS AND
STIFF
HATS

Canes, Umbrellas,

Hat Cases and Gloves.

407 Washington Street.

Discount to Tech Students.

HAWKES,

Tailor,

71 BEACON STREET,

Full Line of

Fall and Winter
IMPORTATIONS

Tel. 1387-3 Hay. Opp. Pub. Garden.

Successors to D. Toy & Co.



THE LARGEST ASSORTMENT OF FOREIGN WOOLENS SHOWN IN BOSTON.

CO-OPERATIVE.

THE TECH

VOL. XX.

BOSTON, FEBRUARY 14, 1901.

NO. 16.

THE TECH

Published every Thursday, during the college year, by students
of the Massachusetts Institute of Technology.

HENRY HODGMAN SAYLOR, 1902, *Editor in Chief.*

WALTER HAVENS FARMER, 1902, *Assistant Editor in Chief.*

I. RAYNE ADAMS, 1902, *Secretary.*

H. S. MAXSON, 1901.

ROBERT WHITE, JR., 1901.

P. G. L. HILKIN, 1901.

C. A. SAWYER, JR., 1902.

J. C. FRUIT, 1902.

ARTHUR SMITH MORE, 1902, *Business Manager.*

ERNEST HARRAH, 1904, *Assistant Business Manager.*

OFFICE HOURS:

Editor in Chief, Monday, 10-11 A. M.
Business Manager, Saturday, 12-1 P. M.

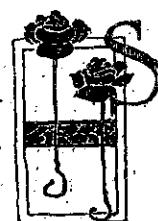
For the benefit of students THE TECH will be pleased to answer all questions and obtain all possible information pertaining to any department of the College.

Contributions are requested from all undergraduates, alumni, and officers of instruction. No anonymous manuscript can be accepted.

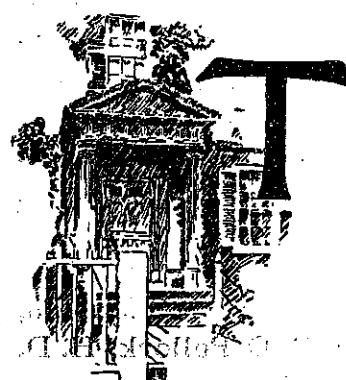
Subscription, \$2.00 per year, in advance. Single copies, 10 cts. each.

Entered in Post Office, Boston, Mass., as Second-Class Matter.

Press of Lothrop, Nichols & Worth Company.

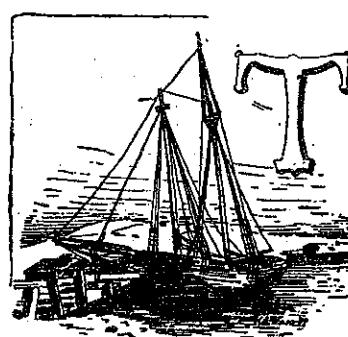


SURELY the Tech man can no longer complain of short and infrequent vacations. They are things of the past — to be forgotten. Next year the whole system will, in all probability, be revised, perhaps divided so as to bring the semi-annual examinations just before Christmas. Nothing definite has been decided however, and the matter is too far in the future for comment. Now that we are all back at work once again, let us all turn our refreshed energy into that work that we may get out of our respective courses all the knowledge and training there is to be had.



THE expressions of sorrow and sympathy in America at the death of Queen Victoria will long be remembered. On all the libraries, schools and public buildings of almost every town and city the flags at half-mast paid the tribute of admiration and grief combined to that great sovereign. New York city was an exception. A very little Mayor had refused to lower his flags to a great, good Queen.

The rough edges of our Democracy have worn off and we are no longer unwilling, as was the case not so very long ago, to admit that there could possibly be any good thing in, about, or under a Monarchy.



THE B. A. annual winter meet in the Mechanics Building is close at hand, and Technology is to be represented in the games by four or five men. There is perhaps no time in the year when we could more readily take the time to attend these games. The examinations are behind us and we have a whole term before us with no accumulation of back work. Surely we should have a goodly turnout on Saturday evening to encourage our men to their best efforts.

New York Alumni Reunion.

Forty of the Technology Alumni met at dinner at the Arts Club on February 9. President Pritchett was unable to be present on account of his illness. Among those who attended were: Henry M. Howe, the metallurgist of Columbia University; George A. Freeman, Henry D. Hubbard, Loring Miller, Alexander Rice McKim, T. Appickernell of the American Telephone Company, A. C. Anthony, H. S. Bird, D. A. Center, I. T. Crane, C. W. Rice, G. M. Yorke, R. N. Wheeler and S. R. Wadsworth.

The board of management for the year was elected as follows: Alexander Rice McKim, secretary and treasurer; C. D. Pollock, H. D. Hubbard, Charles A. Meade and Azel Ames, Jr., executive committee.

C. A. Meade acted as toastmaster. Prof. William T. Sedgwick spoke on technical education, which he said had made great progress in this country and had done much to promote its commercial and manufacturing interests. While on a visit to England recently, he had come to the conclusion that the reason for the decline of the relative importance of England in trade and manufactures was her failure to understand the importance of higher technical education.

The South, he said, needed badly a great technical school like Tech. If she had this and we had more and still better schools, we should not need to fear Germany, our only future competitor. Germany was placing her emphasis in education at the top.

Prof. Michael Pupin presented interesting details about his invention of the submarine telephone. He gave some views on wave propagation, a feature of importance in telegraphic and telephonic work.

Expert in Transportation.

Professor William Z. Ripley has gone to Washington, having been appointed expert in transportation to the United States Indus-

trial Commission. Some time ago Professor Ripley testified before the commission, and his grasp of the subject of transportation and his wide knowledge exhibited in his testimony caused the commission to consider the advisability of securing his services. Professor Ripley has accepted the appointment, and will deal in special reports of the commission with such questions as railroad consolidation, capitalization and the operation of the interstate commerce laws. The commission has published five volumes already, but has not dealt with the phases of industrial development which have arisen out of the recent railroad consolidations. He will be absent on his duties probably for several months, but has not severed his connection with the Institute and will continue his instruction here.

New Chemical Society.

A society has recently been formed consisting of the students of the senior class in chemistry and chemical engineering. It is to be known as the "Senior Chemical Society" and informal meetings will be held monthly at the residence of Mr. Samuel Cabot on Commonwealth Avenue. Mr. Cabot is a member of the corporation and is on the visiting committee for the above departments.

He has always taken great interest in these courses and it was at his suggestion that the society was organized.

At the meeting held last Friday Mr. Henry Howard of the Merrimac Chemical Works read a paper on a new process for the manufacture of liquid carbon dioxide. The apparatus was shown and the solid product produced. Later in the year members will give short talks on their thesis work. This will give additional interest to the researches and tend to prevent the students becoming narrowed down to their individual subjects.

The officers are as follows: President, G. Victor Sammet; Secretary, E. P. Beckwith; Treasurer, P. A. Koler.

Electrical Engineering Society.

The Electrical Engineering Society recently enjoyed a very interesting trip to the new station of the Boston Electric Light Co. The trip was prefaced by a talk by Mr. Hosmer, who outlined the principal features of the plant as well as the general system of distribution employed by the company.

The works are situated in South Boston and include, besides the power house and considerable surrounding land, a spacious deep-water wharf. The society under the guidance of Mr. Hosmer first visited this wharf, on which is a large apparatus for unloading coal. The coal is carried from there to a large store-room in the rear of the boilers, capable of holding 6,000 tons.

From this store-room the party passed to a gallery at one end and near the roof of the boiler room, from which was obtained a very comprehensive view of the six batteries of two boilers each which operate the plant. The boilers are water tube, using Hawley down-draft furnaces.

From the boiler room access was had to another gallery overlooking the electrical part of the plant. Here were seen a large number of synchronous motors, each direct connected to two Brush arc machines. General Electric three-phase alternators, at 120 alternations per minute, furnish an output of about 7,000 kilowatts, 6,000 of which is nearly equally divided between the incandescent and arc systems.

The switchboard is conveniently arranged and provided with two sets of bus bars, so that in case of necessity a number of different combinations are available for the connections to the mains.

Every courtesy was shown to the members of the society by Mr. Hosmer and the employees of the company, and the trip was thoroughly enjoyed by all.

The Technology Review.

The "Inauguration number" of *The Technology Review*, the issue for January, is full of interest to both graduates and undergraduates. The leading place is given to an appreciation of Mr. Augustus Lowell, whose death occurred last summer. Following this is an account of the life and work of Mr. Silas W. Holman. Both articles are accompanied by admirable likenesses. The main part of *The Review* is given over to a full report of the speeches of Mr. T. H. Livermore, ex-President Crafts, Senator Lodge and President Pritchett given at the inauguration of Dr. Pritchett. The usual editorials, minor articles and undergraduate notes are present, the whole going to form one of the best issues of *The Review* since its installation. [*The Technology Review*. Published quarterly. 71 Newbury St., Boston.]

The Society of Arts.

The 548th regular meeting of the Society will be held at the Institute, Rogers Building, on Thursday, February 14th, 1901, at 8 P. M. Mr. Robert S. Peabody, President of the American Institute of Architects, will address the Society on "The Designing of the Buffalo Exposition." Illustrated by stereopticon. Members are requested to invite friends interested in the subject. Ladies invited.

GEORGE V. WENDELL, Secretary.

Seats for B. A. A. Meet.

As in the past, the management of Technology's Athletic Department, has secured a block of seats to be sold only to Tech men, these will be placed on sale in Roger's Corridor, Thursday, Friday, and Saturday mornings of this week.

1901.

The election of the Class Day Nominating Committee will take place Friday, February 15th, from 8.30 A.M. to 4.30 P.M. All seniors are requested to vote.

Commercial Education.

BY PROFESSOR DAVIS R. DEWEY.

During the past two years there have been frequent references, not only in educational literature but in the utterances of men engaged in industrial and public affairs, to commercial education. We have had, to be sure, for many years commercial or business schools,—“Colleges,” as they are termed by the American spirit of extravagant characterization. The object of these schools has been to teach penmanship, bookkeeping, accounts, typewriting and stenography,—accomplishments primarily designed for the clerk, bookkeeper, and stenographer; and it is agreed that many of these schools have undertaken this practical training to good advantage.

The commercial education, however, which has been the subject of more recent discussion, is of an entirely different kind; and it is the purpose of this brief paper to consider the significance of this new movement. It is certainly a development in which every engineer engaged in the production of economic goods should be interested.

The success of a business enterprise may be roughly described as depending upon two factors: first, the manufacture of goods at a low cost; and second, the marketing of these commodities when once produced. The engineer is primarily engaged with the first activity; and through the encouragement which has been given to technical education in this country, the United States is taking a commanding position in its ability to manufacture serviceable goods at a low cost. Until recently the marketing of the product thus created has been a comparatively easy problem. As long as the business of an industrial establishment was confined within narrow limits and the factory, mine, or smelter was small, producing for a restricted area, it was not difficult to master the conditions governing the successful sale of the goods. The two sides of the business, the technical manufacture and the commercial sale, were easily carried on by the same person. The manufacturer could without great effort gain the practical experience required for successful selling.

Conditions, however, are changing rapidly, so that the technical and the commercial sides of the business are being very definitely separated. The forces controlling manufacture relentlessly tend toward the creation of an enormous manufacturing establishment,

surrounded by a group of sub-industries engaged in providing the semi-raw materials demanded in production, as well as in manufacturing the by-products which formerly went to waste. All this has been brought under one management and has made the task of the producer gigantic as compared with former days. On the other hand, the problem of marketing this enormous output, so various in its character, has taken on a new aspect because of the economies of transportation, both domestic and foreign, which tend to annihilate space. Trade is more and more international. We thus have a competitive movement which was undreamed of in a preceding generation.

Now the question is whether there is any special education which will fit the man in charge of the marketing or commercial end, to meet these new conditions with greater power and resourcefulness. Certainly for the business which is likely to have foreign competition, it does not require much reflection to suggest certain lines of study which will be helpful if not imperatively necessary. The commercial management should have knowledge of (1) the markets of raw materials; their territorial distribution and their accessibility to routes of transportation; (2) routes of commerce, including railroad and shipping lines; local regulations as to harbor and port dues, dock privileges; freight rates, marine insurance and charter contracts; (3) restrictions placed upon international trade by tariffs, including not only a knowledge of our tariff but those of foreign countries, including the regulations of customs administration; (4) the rights of American commerce as regulated by international law, and the duties of consular officials; and (5) official statistics of trade, as reported by governments, boards of trade, or commission merchants,—not only the sources but the interpretation of these documents. Even in those branches of business which do not have international points of contact there is an increasing number of subjects of which a knowledge would greatly assist a young man in the successful execution of his duties. A brief list of topics which might well engage attention is here given: Securities and investments; domestic and foreign exchange; taxation; railroad practice; clearing houses; stock and produce exchange; banking; trust companies; savings banks; bond business and note brokerage; patent

and trade marks; corporations; insurance, and commercial law.

Specialization is the secret of modern development and success, and if it be true that this principle is to control the development of industrial activity as in other fields of intellectual energy, it will be necessary that the commercial manager be as highly trained within his field as is the technical producer or engineer. England and Germany, particularly the latter, have already begun to recognize this modern phase of the problem. In this country there has been some realization of it, and so-called courses in commerce have been introduced into a half dozen or more universities; too often, however, these new departments are simply re-assorted courses of economics and political science labeled under a new term — "Commerce."

The commercial education of the future must be as practical and as intensive as that of the engineer. It may well be asked if this can be done. While no clear answer can be given, it must be remembered that difficulties which faced engineering education thirty or forty years ago in this country were very great. There was no agreement as to what subjects should be taught, and as for text-books, — they had to be created through the slow accumulation of class room notes. Engineering education as it is found today has been a matter of growth and experiment. It must be the same with commercial education. As soon, however, as its need is seriously recognized, the way for its development will be found, and another department will be added to the education of man, which will be genuine and sincere in its appreciation of the realities of life.

Calendar.

Thursday, February 14th. — Meeting of the Society of Arts, Rogers Building, 8. P. M. Lecture.

Friday, February 15th. — Senior's Class Day Nominating Committee Election. Tech Y. M. C. A. Student Meeting, Room 11, Rogers, 4.10 P. M.

Saturday, February 16th. — B. A. A. Meet, Mechanics Building, 7.45 P. M. Concert of Musical Clubs at Colonial Club, Cambridge. Hockey team plays Brown at Providence.

Sunday, February 17th. — Regular Y. M. C. A. Student Meeting at Student House, 566 Mass. Ave., 4 P. M.

Monday, February 18th. — Regular TECH Board Meeting, TECH Office, 1 P. M.

Tuesday, February 19th. — Basket-ball, M. I. T. vs. Harvard, at Cambridge.

Wednesday, February 20th. — The Electrical Engineering Societies' Excursion to the General Electric Company at Lynn. Hockey team plays Melrose High at Melrose.



All Institute men interested in Christian Science are requested to hand their names to F. E. Cady.

C. A. Sawyer Jr., Editor-in-Chief of *Technique* '02, is able to be out again after a three weeks' confinement with a complication of diseases.

Professor Alfred E. Burton, who was elected President of the Bowdoin Alumni Association, February 6th, presided and also officiated as Toastmaster at the Dinner that evening.

Professor Crosby spent his vacation in visiting the zinc mines in Missouri and the gold mines in Colorado, in the combined interests of Mining Engineering and Geology.

The Glee Club is in need of more second tenors and first basses. All men wishing to try for these positions may consult with H. K. Hooker, leader of the Glee Club, at their earliest convenience.

President McKinley has appointed President Pritchett as one of the Commissioners to test and examine the weight and fineness of the coins reserved at the several mints during the calendar year 1900.

The Precision of Measurements which the Course VI. '02 men would take in their senior year will be given them this year in connection with Professor Law's course on Electrical Measuring Instruments. The Seniors are not affected by this change.

The Library has received for the Department of Military Science, a gift of 180 vols. of the Records of the War of the Rebellion, from Mr. S. N. D. North, Sect. of the National Association of Wool Manufacturers.

Technique grinds have been coming in fairly well from the two lower classes. The attention of all Freshmen and Sophomores is directed again to the completion now under way, and it is hoped that all will take some part in it.

Mr. Robert S. Peabody will give an Illustrated Lecture on "The Designing of the Buffalo Exposition," Thursday evening, February 14, at 8. p. m., in Room 11, Rogers Building. The students are invited to attend.

The next Concert of the Musical Clubs will be at the Colonial Club of Cambridge on Saturday evening, February 16th. Take any Boylston St. Harvard Square Car and get off at Quincy St. This is to be one of the pleasantest concerts of the season.

The Clubs are going to Northampton for a concert the latter part of this month, the date to be announced later. Club reduced rates are available for any who wish to accompany them. Those interested should consult Hudson as soon as possible.

The Electrical Engineering Society will make its annual excursion to the works of the General Electric Company at Lynn on Wednesday afternoon, February 20th. This trip is one of the most interesting and instructive that is to be made during the year, and is open to all members of the Society.

It is stated, that in case the Walker Club decides not to give a play in Junior Week, L'Avenir will be re-organized and will give a French Play. The time is most propitious for such a venture, several French linguists being at Tech this year. All men wishing to take part in a French Play should consult Mr. Bernard.

In the Architectural Department the following men have received mentions on the problems of last term: The fifth year, 1st mentions, Little, Walker; 2nd mentions, Merrick and Ford; the fourth year, 1st mentions, Appleton,

Lawrence, Emerson; 2nd mentions, Holford, Henrich, Aldrich, Merrill; 3rd mentions, Butler, Hamilton, St. Clair, Blanchard; third year, Crowell, de Colmesnil, Matteosian; 2nd mention, Kern, Wood and Muzzy.

The students of Dr. Thorpe's Industrial Chemistry Class took a trip to North Woburn to the Merrimac Chemical Works last Wednesday afternoon. There they saw, in operation, the processes of chemical manufacture, which they had been studying during Mid-year. Sulphuric, Nitric, and Hydrochloric Acids and Alum were the products. The Superintendent showed the party around and explained all the details from the introduction of the crude materials to the final stages of C. P. products.

Work on the Senior Portfolio is well under way. The book will be kept in portfolio form similar to last year's issue, but there will be several important changes. The class has been divided into sections for the "write-ups," and a brief descriptive circular and tickets are now in print. The committee on publication wishes to urge on all seniors the necessity on co-operation in the works of publication. Promptness with the photograph will be a great help to the committee. Seniors will please see to it that the pictures are handed in on time.

The Hockey Team.

The daily practice and schedule of games of the Hockey team were interrupted by the examinations and vacation, but vigorous training began with the new term and it is hoped that the team will make a good showing during the remainder of the season. Several members of last year's team are back and many new candidates have come out. The following schedule is announced:—

February 16th, Brown at Providence; February 20th, Melrose High at Melrose; February 23rd, Andover at Andover.

B. A. A. Meet.

The annual open handicap games of the B. A. A. will be held in Mechanics Building next Saturday evening. The meet is one of the leading events in the athletic and college world, and the number of entries promises as interesting an evening as any of the former ones. As usual there are several dark horses, and several surprises are apt to be sprung and new records established.

As usual, the 40-yard dash has the most entries. Harvard sends Dana and Larocq, and Ristine and Ellis of last year's football team. F. B. Scheuber, the Worcester Academy dark horse of the meet two years ago, will this year run for Hopkinson. Georgetown will send her crack runner, Arthur Duffy. Yale sends Franchot and Thomas; Holy Cross sends Sullivan, and Somerville sends W. D. Eaton.

The high jump has such men as Jones, of N. Y. University, last year's intercollegiate champion; Carroll of Harvard Law; Arthur Rotch, former captain of Harvard track team; I. K. Baxter formerly of Trinity and University of Pennsylvania; F. K. Baxter of M. I. T.; and Frank Conway of South Boston.

Champion Maxey Long, will be seen in the 600-yard, and in the quarter and will be matched against Snow of Bowdoin; Hastings of Cornell; Scheweppe of Harvard and Dow of Dartmouth. In the 1000-yard run will appear Moynihan of Holy Cross, Franchot of Yale, Buckley of Tufts, Crawford of Williams and Dixon of Worcester High.

The two-mile run claims such men as Alex and Dick Grant; Taylor, Carter and Williams of Harvard, Kanaly of Cambridgeport, and Sandford of Knickerbocker A. C. The one-mile will probably go to Alex Grant, but will be hotly contested with Brignolia of Cambridge, and Dixon of Worcester High.

The stars for the hurdles are Potter of

Williams, O'Connor of Exeter, Scheuber of Hopkinson, and Thomas of Yale. In the field events, Dick Sheldon of Yale, and Ray Ewey of N. Y. A. C. are the leaders.

The team races have been scheduled as follows: — Harvard *vs.* U. P.; Cornell *vs.* Princeton; Dartmouth *vs.* Columbia; Amherst *vs.* Williams; Exeter *vs.* Andover; M. I. T. *vs.* Bowdoin; Boston Y. M. C. A. *vs.* Cambridge Y. M. C. A., and the class teams from Harvard.

Technology at the B. A. A. Meet.

With the opening of the second term comes an increased activity in athletics, stirred up as they are by the nearness of the B. A. A. games. These will be held Saturday evening, Feb. 16, at Mechanics Hall.

Technology is again matched with her victorious rival of last year's relay team race, Bowdoin, and promises to do all in her power to retrieve last season's defeat. The team will be in good condition, though the meet comes soon after the vacation, and will probably be picked from the following men, under the captaincy of W. W. Garrett, '01; — W. W. Garrett, '01; R. S. Franklin, '02; K. C. Grant, '02; A. W. Rowe, '01; G. C. Capelle, '02.

These men are working hard and conscientiously, and when our team comes upon the track it should receive such an ovation as to make the men run the race of their life and bring victory to Technology.

Besides the team race we have several individual entries, and promise of several more before the entries close. Among the entries are; — R. V. Brown, '02, in the 40-yard dash; J. C. Crowell, '04, in the 40-yd. and 440-yd. dashes; F. K. Baxter, '01, in the high and standing broad-jumps; H. F. Peaslee, '03, in the mile; and H. T. Winchester, '03, in the 40-yd. dash and shot-put. Judging from the previous work of these men, Technology should make a good showing.

The Basket-ball Team.

Since the close of examinations the basket-ball team has played three games, winning one and losing two. On January 30th, the team met Holy Cross at Worcester, Holy Cross winning by 16 to 6. Lack of practice due to the games following immediately after the examinations was the cause of Tech's defeat.

On February 6th, M. I. T. defeated the Haverhill Y. M. C. A., at Haverhill, superior weight and energetic play winning the game by 17 to 14. Last Saturday the Tech team was again defeated, Company E., 6th Regiment winning the game at Framingham by 22 goals to 1, Tech's lack of team play and practice being the cause of her defeat.

Libbey is the star player on the Tech team and has shown up splendidly in all the games played, and with the other excellent material in Tech, Manager Peaslee hopes to get a team into the form shown before the vacation, when the men played with more spirit and better team play than they have shown lately. It rests with the men themselves to produce a team worthy of Technology, so that they can claim recognition from the advisory council. In addition to the following schedule, Manager Peaslee hopes to arrange games with Amherst, Brown, and other colleges, for Feb. 21, 22, and 23, and March 9 and 13. The schedule follows:

Feb. 13, Pawtucket Y. M. C. A. at Pawtucket; Feb. 16, Newton Y. M. C. A. at Newton; Feb. 19, Harvard University at Cambridge; Feb. 25, Watertown Y. M. C. A. at Watertown; Feb. 28, Tufts College at Medford; March 2, Fall River Y. M. C. A. at Fall River; March 5, Harvard University at Boston; March 16, Lawrence Y. M. C. A. at Lawrence; March 21, Winchester Y. M. C. A. at Winchester; March 28, Lowell Y. M. C. A. at Lowell; March 30, Brown University at Boston.



Yale, Princeton and Columbia will have a triangular bicycle meet at New Haven the second week in May.

Minnesota hopes to arrange a game of football with Harvard next year. It will probably be played at Cambridge.

The annual boat-race between Annapolis and the University of Pennsylvania will be rowed at Annapolis May 11th, on the Severn River.

The St. Mark's Hockey team defeated the M. I. T. team by 17 to 0 last Saturday. St. Marks excelled at every point, most noticeably in team play.

A tax was levied on the student body at Wesleyan to provide caps and sweaters for the football team, and for the expenses of the debating team.

The University of California is to inaugurate rowing by a four-oared shell race with the University of Washington. The challenge has already been sent.

It is probable that if the International games between Yale and Harvard, and Oxford and Cambridge be arranged, that they will be held at the Pan-American Exposition in Buffalo.

Harvard and Princeton have been unable to arrange for any games next spring between the two universities, as the latter demanded three dates. By complying with this request, Harvard claims that she would not be able to arrange her other games.

At a recent meeting of the executive com-

mittee of the Athletic Association it was decided that the Athletic Association should have direct control of all minor organizations and that the election of all captains of athletic organizations must meet with their approval. The recent organization of a basket-ball team was approved and permission was given it to call itself a University organization.

Annual Meeting of N. E. I. A. A.

The eleven colleges forming the New England Intercollegiate Athletic Association were all represented at the annual meeting held in the Copley Square Hotel last Saturday. The following officers were elected: President, E. S. Goldthwaite, Williams; Vice President, H. S. Parker, Dartmouth; Secretary, Mr. Cleeland, Amherst; Treasurer, H. T. Winchester, Massachusetts Institute of Technology; Executive Committee, Messrs. Walker (Bowdoin), Wells (Wesleyan) and Barton (Trinity.) The representatives present from the different colleges were as follows: Amherst, J. L. Vanderbilt; Bowdoin, G. Rowland Walker and H. L. Sweet; Brown, E. S. Chase; Dartmouth, V. W. Gooch; Massachusetts Institute of Technology, H. M. McMaster, R. Murray and P. H. Perry; Tufts, J. Butler; Trinity, J. D. Evans; Williams, E. S. Goldthwaite; Worcester Polytechnic Institute, E. W. Maynard and P. Loff; Wesleyan, C. A. Ives; University of Vermont, E. McCarty.

Aside from the election of officers there was no official business, but the question of running the trial heats on the day before instead of on the morning of the championship meet, was discussed. This is done at the Mott Haven games with excellent results.

Most of the colleges were in favor of this change in the constitution, but as no notice stating that this action was contemplated had been sent out four weeks ago, no action could be taken. It is understood that nothing regarding this matter can be done this year.



'72. Brad. H. Locke, III., made a flying trip through Boston not long since, but did not find time to stop and visit the Institute.

'75. W. C. Edes, I., is assistant civil engineer of the Southern Pacific Company at San Francisco.

'79. Arthur H. Metcalf, II., died at his home in Pawtucket, R. I., on October 24, 1900. His death is one which will be felt by the class.

'81. Major Frank H. Briggs, IX., is a member of the Republican State Committee of Massachusetts for 1900 and 1901.

'88. J. C. T. Baldwin, VI., is now with the engineering department of the American Bell Telephone Company.

'91. George H. Spooner, VI., announces the birth of a son, Sept. 9, 1900.

'93. Carleton E. Davis and Miss Grace L. Bennett were married Sept. 25, 1900.

'96. Frank E. Geptill, VI., is employed with the Virginia Electrical Railway and Development Company in Richmond.

'98. Everett F. Currier, with the Hamilton Woolen Company, Amesbury, Mass., was married Nov. 8, 1900 to Miss L. R. Pulsifer.

'99. B. E. Morse, II., VI., has been elected Assistant Secretary of his class.

'99. Harold O. Ayer, V., has lately gone to Savannah, Ga., to become assistant chemist in a cotton-seed oil company.

'00. Samuel B. Elbert, III., is at present in Honduras, where he is working a placer gold mine.



Verily, THE LOUNGER has been amazed to observe how absolutely and completely illogical natural happenings occasionally are. THE LOUNGER, from long experience, had come to the conclusion that nothing good could result from the semi-annual torment to which he has recently been subjected, except perhaps a notice to the effect that his further presence would be unnecessary, but his latest discovery has overthrown all THE LOUNGER's theories and has proved that good may come out of almost anything. While in the course of earnest preparation for his examinations, THE LOUNGER took up a certain periodical known as *The Wellesley Magazine*, and for the benefit of his long suffering readers THE LOUNGER appends his discovery, a clipping from a criticism in that paper on the various college departmental columns:

"THE LOUNGER has the best of them all, however. A picture at the head of his column shows him sprawling in his easy-chair before a blazing fire, behind him the soft light of a tall lamp, in one hand a paper, in the other a pipe; and he is lazily watching the smoke curl up against the dancing flames of the fire. His lot is truly a happy one! Under such circumstances it is small wonder that he can philosophize so delightfully in a bantering, lightly humorous, and decidedly effective, suggestive way, over anything and everything that comes along—from a comment on the phenomenal rubber-like qualities of the cane in the rush, to a direct allusion to the Secretary. His humor makes twists and turns on itself and crops up most unexpectedly in one place after another. It is always good-humored, too. On the whole, THE LOUNGER has the most delightful personality of all whom we meet among our exchanges."

Now on the face of this interesting and highly edifying criticism it might be assumed that THE LOUNGER was publishing it simply to add glory to his already famous personality or in other words was cultivating a progressing case of swelled head, but THE LOUNGER wishes to correct any idea of that sort at the start. Aside from the natural and allowable pleasure of receiving proof that true worth *is* appreciated, notwithstanding any aspersions of *Technique* to the contrary, THE LOUNGER would like modestly to correct a few impressions, slightly erroneous, which

he fears have taken hold on the imagination of the fair scribe at the other end of the line. As to the primary, fundamental phrase in the first line, stating that "THE LOUNGER has the best of them all," he would not venture to dispute so self-evident a fact; it is merely a few matters of detail that concern him at present. That is, the too hasty conclusion which the maiden has come to in the statement, "His lot is truly a happy one!" Now as far as THE LOUNGER's limited gaze can extend, all he sees to justify this is that well-known deception at the head of this column. If the fair Wesleyan were a co-ed at Tech—although THE LOUNGER would not be guilty of wishing anyone that misfortune—she would well know that the aforementioned cut was the horrible effect of a pipe dream of the artistic editors on the morning after a class dinner in the 'eighties, when such things as mixed drinks were but in their infancy. THE LOUNGER felt that this remark about his lot was so unwarranted that he even ventured to try to search out his fair critic to invite her to visit the office some Monday morning to watch THE LOUNGER writing against time, with the printer's devil on one side and the editor-in-chief on the other, both to give piquancy to his effusions. When the first bevy of beauties he cast eyes on, however, turned and fled THE LOUNGER relinquished his object and wended his way homewards. "Twas a sad awakening. THE LOUNGER's modesty again forbids him to remark on his own philosophy and humor; he is glad, however, that the editor found a name to call it besides D. T. As to the snake-like evolutions of it, THE LOUNGER fully agrees; in fact he could go farther and suggest, in addition to "twists and turns" one more very obvious stage in the development "knots." THE LOUNGER indeed feels that in the present state of complacent self esteem he has reached he may presently become tangled up in one, so he will close with the wish that his "delightful personality" might induce a few of the innocent victims who subscribed to THE TECH under his tutelage to pay up.



The smoke refuses to curl from THE LOUNGER's pipe. His inspired appeal to the Sophomore Class was futile,—a prophet has no place in his own country. Compliments, advice, threats, probation, all are of no avail. The germ of puerility still remains.—'Tis 12.57. The lights are off; the stereopticon is in full sizzle; the eager students closely follow the gyrations of Charlie's pencil thrown upon the curtain; the thirst for knowledge and research is running high, when spasm number one breaks upon the awful stillness. Another spasm and 'tis done. Exit, Macbeth—the Sophomore Class goes to lunch. THE LOUNGER's heart is full, his pipe is empty. Will these erring, wandering microbes of belated infancy never die!

Young Men . . .

Will find our Stock replete with
Latest Novelties in

RAIN COATS
FANCY VESTS REVERSIBLE
TUXEDOS
SUITS
OVERCOATS.

Our Special Hat, Style 2525

\$2.00

is equal to most hats sold for
three dollars

Continental Clothing House,
Washington and Boylston Streets.

THOMAS O. TURNER
STUDIO
252 BOYLSTON ST.
Boston, Mass.

Discount to Tech Students.

MEMBER OF THE CO-OPERATIVE SOCIETY.

"THE GIRLS ARE FOND OF THESE"



TECH EMBLEMS.

Greatest Variety,
Lowest Prices,

BENT & BUSH,

387 WASHINGTON ST., BOSTON.

Priest's Dining Rooms,
102 DARTMOUTH ST.

21 Meal Tickets,	\$4.00
7 Noon Dinners,	1.20
7 Dinners,	1.50

OPEN UNTIL MIDNIGHT.

AWARDED MANY PRIZES WHEN IN COMPETITION WITH
OTHER PHOTOGRAPHERS, AND ESPECIALLY HONORED
BY THE PHOTOGRAPHERS' ASSOCIATION OF NEW
ENGLAND AT THEIR 4TH ANNUAL CONVENTION
SEPT. 12-15, 1900, BY THREE SALON AWARDS

Announcement

1901
The . . .
Senior Class Photographer
of Mass. Inst. Tech.
...IS...

Chas. W. Hearn,

STUDIO
394 Boylston Street,
(Near Berkeley St.)

Specially favorable rates to all students of M.I.T.
Portraits in Carbonette Platinum and Carbon.

LATROBE STEEL COMPANY.



Works,
Latrobe, Pa.

Main Office,
Philadelphia, Pa.

The Technology Review

A QUARTERLY MAGAZINE
DEVOTED TO THE
INTERESTS OF THE
MASSACHUSETTS INSTITUTE
OF TECHNOLOGY

AND

PUBLISHED BY THE ASSOCIATION OF CLASS SECRETARIES
71 NEWBURY STREET, BOSTON

The Review aims to develop closer relations among Institute men, and to stimulate their interest in the work of the College.

It is in no sense an engineering magazine, but deals broadly with the problems of Technological Education and the responsibilities of the professional man.

SUBSCRIPTION, ONE DOLLAR A YEAR

SINGLE COPIES, THIRTY-FIVE CENTS

Volumes I. and II., finely bound in half morocco, are ready for delivery at \$2.50 each, or will be exchanged for unbound sets, provided they are in good condition, at \$1.50 each.



Week Commencing February 18, 1901.

NOTE.—Matinees at all the Theatres on Feb. 22.

Hollis Street Theatre.—John Hare and Miss Irene Vanbrugh will continue for the rest of this week in "The Gay Lord Quex." The play is very clever and should not be missed by anybody. Next week William Gillette will present for the first time in Boston his famous drama, "Sherlock Holmes." He has had a phenomenal run in New York.

Colonial Theatre.—"Ben Hur" is now in its ninth week. Its success has been wonderful, but this is not surprising to one who has seen the play. The characters are well taken, the staging is elaborate, and the incidental music is charming. Seats may be secured three weeks in advance.

S. SIMONS, Tel. 1509-2, Haymarket.

Leading College Shoe Man.

Low Black Calf a Specialty.
46 Charles Street, and 45 River Street,
BACK BAY, BOSTON.

Tremont Theatre.—The very successful engagement of "Way Down East" comes to a close next week. The portrayal of old New England farm scenes is very often seen on the stage now-a-days but this is easily the best of them. The play is highly recommended by the clergy.

Boston Museum.—Ada Rehan in "Sweet Nell of Old Drury" has strengthened her position as one of America's leading actresses. The parts are well taken and Miss Rehan's part, especially, gives great opportunity for wonderful and capable acting. Next week is her last in Boston.

Columbia Theatre.—"The Burgomaster," a new musical comedy, is repeating its New York and Chicago successes. It deals with the adventures of old Peter Stuyvesant in New York in 1900, and has many comical situations. The cast is excellent.

Castle Square Theatre.—"The Little Minister," with Mr. Mackay in the title role, is very popular. Lillian Lawrence makes a very bewitching Babbie. The romantic drama, "Frou-Frou," is announced for next week. This play has been popular for over thirty years. Following this an elaborate production of "Under Two Flags" will be given.

Boston Theatre.—Denman Thompson in "The Old Homestead." As popular as ever.

Park Theatre.—"Self and Lady" for the rest of this week. Next week Herbert Kelcey and Effie Shannon in "My Lady Dainty."

HERRICK TICKETS Copley
ALL THEATRES Square.

Telephone 608 and 950 Back Bay.

Heavy Reduction. *

All Winter SHOES,
Also Patent Leathers,

* DURING FEBRUARY. *

COES & STODDER,

78 Boylston Street,

and 14 School Street,

BOSTON.



A. S. ADAMS
Maker of the Official
M. I. T. Pin
8 Winter St., BOSTON.



THOMAS HOOPER,
Maker of
CUSTOM SHIRTS,
352 Washington Street, BOSTON.
Telephone 2902 Boston.



MISS POST,
Dancing and Deportment,
Pierce Hall, Copley Sq.,
PRIVATE LESSONS AND CLASSES.

Office hours from 9 to 11 a. m.

S. C. KEITH, JR., '93,
BACTERIOLOGIST
AND CHEMIST,
394 RUTHERFORD AVE., CHARLESTOWN, MASS.

Flowers. Candies.

The Thorndike Flower Store,
230 BOYLSTON STREET.

Next to the Thorndike.

Tel. 101 Back Bay.

SPECIAL DISCOUNT TO STUDENTS.

Landers'

Always Open
Quick Service
Polite Attention

Famous Coffee House
and Lunch Room.....

For Ladies and
Gentlemen.

Lunches Put Up
To Take Out.

Our Coffee is Unequalled in the City.

* * *

189 Columbus Ave., cor. Berkeley.
695 Washington Street.

I. N. LANDERS, Proprietor

H. E. SANDERS, Manager

Correspondence desired with a young graduate of the Mass. Institute of Technology, by an established iron works in the Northwest, employing sixty to ninety men. An excellent chance to gain a greatly varied practical experience. Some knowledge of assaying will be advantageous. Give age and birthplace. Reference will be needed as to general qualifications, habits of industry, and character. Moderate salary the first year. Address

"THE TECH."

The Bath's the Thing.

TURKISH BATH

Removes all impurities, clears the brain, and sends the blood tingling through the body. The best baths in Boston are the

TREMONT TURKISH BATHS,
Adolph Lundin, Prop. 176 Tremont St., Boston.
Under the Tremont Theatre. Tel. 625 Oxford.

Young's Hotel

Parker House

Hotel Touraine

BOSTON, MASS.

J. R. WHIPPLE & CO.



T. E.
**Moseley
& Co.**

Winter and Storm Boots,

Double Soles—Tan—Black.

\$3.50 to \$9.00.

145 Tremont St., Between Temple Place
and West Street.

10 PER CENT. DISCOUNT TO TECH.

Wright & Ditson, LEADING BASEBALL OUTFITTERS.

Wright & Ditson's Intercollegiate Base Ball	is specially adapted for school and college matches	\$1.25
Wright & Ditson's League Ball,	. . . . .	1.00
Wright & Ditson's League Bats are finely balanced, thoroughly seasoned, and are hard drivers,	. . . . .	.75
League Bat,	. . . . .	.75
College Bats,	. . . . .	.50
Amateur Bats,	. . . . .	.25
Special College Catchers' Mit,	{ Extra Large, Ordinary Size,	7.00 5.00
Best Baseman's Mit,	. . . . .	4.00
Best Fielder's Glove,	. . . . .	2.50

Uniforms, Shoes and other Supplies are the best.
Send for Catalogue containing Price List of Golf,
Tennis, Football and General Athletic Goods.

WRIGHT & DITSON, 344 Washington St., Boston.

ALL GOODS REQUIRED BY STUDENTS AT

MacLachlan's,
214 Clarendon Street.

Drawing Instruments and Materials, etc.
Fountain Pens, Text Books.

EGYPTIAN DEITIES

"NO BETTER TURKISH CIGARETTES CAN BE MADE"

Students, Attention!

At TRINITY COURT PETIT LUNCH, one minute's walk from Technology buildings, you can get the best and at the most reasonable prices in Boston.

Service and cuisine unexcelled.

TRY US.

**"1902 TECHNIQUE
Is Coming."**

St. Botolph Hall

Cafe

38 St. Botolph Street.



PRICES:

Regular weekly Board, (3 meals a day,)	\$6.00
21 Meals, Breakfast ticket,	6.00
21 Meals, Luncheon ticket,	4.00
21 Meals, Dinner ticket,	7.00



G. R. HOWARD.

THE BRUNSWICK,

BOSTON.

Boylston and Clarendon Streets,

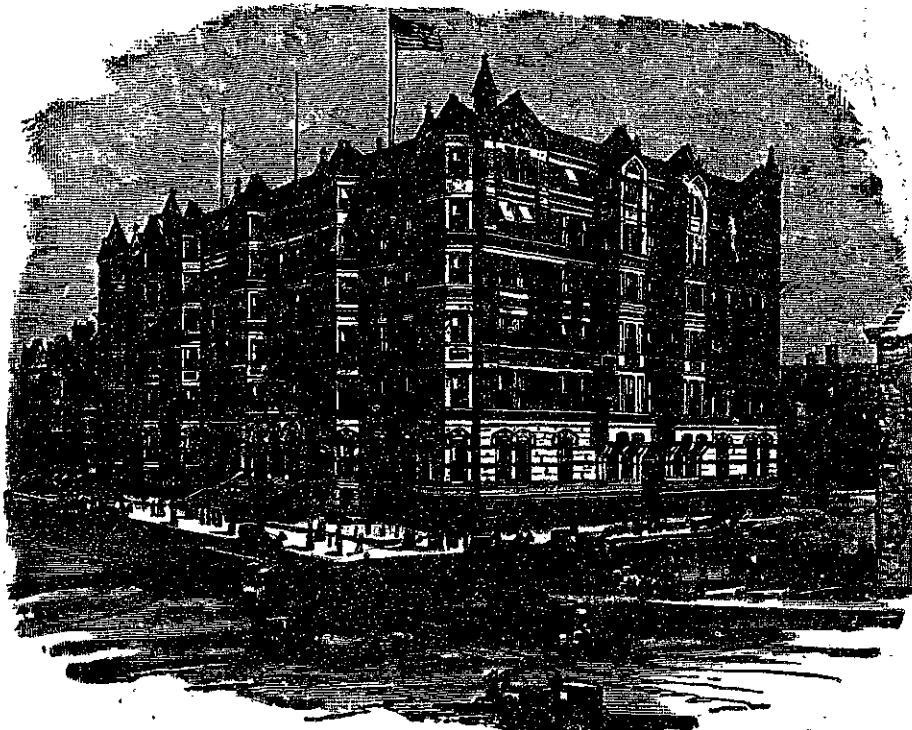
(Adjoining Copley Square.)

Near the Museum of Fine Arts, New Public Library, New Old South Church, and opposite Trinity (Philips Brooks') Church and Institute of Technology.

KEPT ON BOTH AMERICAN AND EUROPEAN PLANS.

BARNES & DUNKLEE, Proprietors.

H. H. BARNES, Manager.



**BOSTON UNIVERSITY
School of Medicine.**

* * *

Large teaching force, including specialists. Advanced and thorough methods of instruction. High standards. A broad and comprehensive curriculum. Exceptional laboratory and clinical facilities; upwards of 20,000 hospital and dispensary patients being annually available for purposes of clinical instruction.

For information and circular, apply to

J. P. SUTHERLAND, M.D., *Dean,*
295 Commonwealth Avenue,
BOSTON, MASS.

**DR. ALPHEUS R. BROWN,
DENTIST,**

201 CLARENDON ST. BOSTON.
Next to The Brunswick.

Telephone
No. 1431-2 Back Bay.



In writing advertisers kindly mention THIS TECH

F. L. DUNNE,

Maker of

Men's Clothes.

**CORRECT
LONDON NOVELTIES
FOR EVERY
OCCASION.**

Sporting Garments

OF ALL DESCRIPTIONS.

Transcript Building, 328 Washington St.,
BOSTON.

The Improved
**BOSTON
GARTER**
The Standard
for Gentlemen
ALWAYS EASY
The Name "BOSTON
GARTER" is stamped
on every loop.
The
Jack Graft
**CUSHION
BUTTON
CLASP**
Lies flat to the leg—never
Slips, Tears nor Undustens.
SOLD EVERYWHERE.
Sample pair, Silk \$6. Cotton \$4.
Mailed on receipt of price.
GEO. F. PEARY CO., Boston,
Mass., U.S.A.
EVERY PAIR WARRANTED

MARKS COMPANY, Merchant Tailors,

5 BEACON STREET,

(Opp. head of Somerville St.)



WE CLAIM TO BE ABLE TO
PLEASE EVERYBODY.

YOU WILL FIND, ON EX-
AMINATION, THAT WE
CARRY A FULL LINE
OF THE

LATEST AND MOST EXCLUSIVE DESIGNS

AND THAT WE ARE THEREFORE ABLE TO
SUITE THE MOST FASHIONABLE AND FASTI-
DIOSUS TASTES.

Overcoats a Specialty.

OUR PRICES \$25.00 AND UP.



J. C. LITTLEFIELD,

Tailor and Outfitter,

12 Beacon Street,
Boston.

I can offer you a larger and more complete assortment
than can be seen elsewhere, and at lower prices for the
same qualities. Look in and examine my prices before
placing your order.

Golf Breeches, Riding Breeches, and Dress
Suits a Specialty.

DISCOUNT TO STUDENTS.

SHIRTINGS for 1901 Now on Display.

Call Early while Assortment is Complete.

* * *

Keep Manufacturing Co., KEEP'S SHIRTS.

150 TREMONT STREET, NEAR WEST STREET.

* * * BOSTON. * * *

Flakers of

SPECIAL RATES TO M. I. T. STUDENTS.

**

Class Rate, 1900-1901.

**

Crown Photograph—Carbonette Finish.

First Dozen, 50¢; Additional Dozen, 25¢.

First Dozen, 50¢; Additional Dozen, 25¢. Total, 50¢.

With each lot of four dozen two finished proofs allowed,

With each lot of six dozen three finished proofs allowed.

Each extra dozen additional for five cents each.

Ten extra proofs given free with every order for twenty-five.

Fifteen extra proofs given free with every order for one hundred.

Elmer Chickering

The Leading Photographer.

21 WEST STREET, BOSTON.